

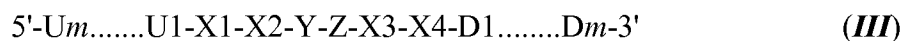
Amendments to the Claims:

This claim listing will replace all prior versions and listings of claims in the application:

Claim Listing:

1-11. (Cancelled)

12. (Currently amended) An immunostimulatory oligonucleotide compound comprising a sequence of formula **(III)**:



wherein:

Y is ~~a non-natural pyrimidine nucleoside~~ selected from the group consisting of 5-hydroxycytosine, 5-hydroxymethylcytosine, N4-alkylcytosine and 4-thiouracil;

Z is selected from the group consisting of guanosine, 2'-deoxy-guanosine, ~~or a non-natural purine nucleoside~~ 7-deazaguanosine and 6-thioguanosine;

each X independently is independently selected from the group consisting of a naturally occurring nucleoside, C3-alkyl linker, 2-aminobutyl-1,3-propanediol linker, β -L-deoxynucleoside, 1',2'-dideoxyribose, C3-linker, Spacer 18, 3'-deoxynucleoside, 2'-O-propargyl-ribonucleoside, Spacer 9 and 2'-5' linkage;

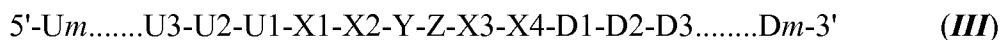
wherein Um-U1 represents an upstream potentiation domain, where each U independently is a naturally occurring nucleoside or an immunostimulatory moiety;

wherein D1-Dm represents a downstream potentiation domain, where each D independently is a naturally occurring nucleoside or an immunostimulatory moiety; and m, at each occurrence, represents a number from 0 to 30; and

wherein at least one X, U, or D is selected from the group consisting of C3-alkyl linker, 2-aminobutyl-1,3-propanediol linker, β -L-deoxynucleoside, 1',2'-dideoxyribose, C3-linker, Spacer 18, 3'-deoxynucleoside, 2'-O-propargyl-ribonucleoside, Spacer 9 and 2'-5' linkage.

13. (Canceled)

14. (Currently amended) An immunostimulatory oligonucleotide compound comprising a sequence of formula (III):



wherein:

Y is a ~~non-natural pyrimidine nucleoside~~ selected from the group consisting of 5-hydroxycytosine, 5-hydroxymethylcytosine, N4-alkylcytosine and 4-thiouracil;

Z is selected from the group consisting of guanosine, 2'-deoxy-guanosine ~~or a non-natural purine nucleoside~~ 7-deazaguanosine and 6-thioguanosine;

X1 is selected from the group consisting of a naturally occurring nucleoside, C3-alkyl linker, 2-aminobutyl-1,3-propanediol linker, and β -L-deoxynucleoside;

X2 is a naturally occurring nucleoside or a 2-aminobutyl-1,3-propanediol linker;

X3 is a naturally occurring nucleoside or a nucleoside methylphosphonate;

X4 is a naturally occurring nucleoside or a nucleoside methylphosphonate;

U1 is selected from the group consisting of a naturally occurring nucleoside, 1',2'-dideoxyribose, C3-linker, and 2'-O-methyl-ribonucleoside;

U2 is selected from the group consisting of a naturally occurring nucleoside, 1',2'-dideoxyribose, C3-linker, Spacer 18, 3'-deoxynucleoside, nucleoside methylphosphonate, β -L-deoxynucleoside, and 2'-O-propargyl-ribonucleoside;

U3 is selected from the group consisting of a naturally occurring nucleoside 1',2'-dideoxyribose, C3-linker, Spacer 9, Spacer 18, nucleoside methylphosphonate, and 2'-5' linkage;

each U_m is independently selected from the group consisting of a naturally occurring nucleoside, C3-alkyl linker, 2-aminobutyl-1,3-propanediol linker, β -L-deoxynucleoside, 1',2'-dideoxyribose, C3-linker, Spacer 18, 3'-deoxynucleoside, 2'-O-propargyl-ribonucleoside, Spacer 9 and 2'-5' linkage;

D1 is selected from the group consisting of a naturally occurring nucleoside 1',2'-dideoxyribose and nucleoside methylphosphonate;

D2 is selected from the group consisting of a naturally occurring nucleoside, 1',2'-dideoxyribose, C3-linker, Spacer 9, Spacer 18, 2-aminobutyl-1,3-propanediol linker, nucleoside methylphosphonate, and β -L-deoxynucleoside;

D3 is selected from the group consisting of a naturally occurring nucleoside, 3'-deoxynucleoside, 2'-O-propargylribonucleoside; and 2'-5' linkage; and

each D_m is independently selected from the group consisting of a naturally occurring nucleoside or an immunostimulatory moiety, C3-alkyl linker, 2-aminobutyl-1,3-propanediol linker, β -L-deoxynucleoside, 1',2'-dideoxyribose, C3-linker, Spacer 18, 3'-deoxynucleoside, 2'-O-propargyl-ribonucleoside, Spacer 9 and 2'-5' linkage;

provided that at least one of X1, X2, X3, X4, U1, U2, U3, D1, D2 or D3 is not a naturally occurring nucleoside.

15. (Withdrawn) The immunostimulatory oligonucleotide compound of claim 12, wherein U2 and U3 are both the same and are selected from the group consisting of 1',2'-dideoxyribose, C3-linker, and β -L-deoxynucleoside.
16. (Withdrawn) The immunostimulatory oligonucleotide compound of claim 12, wherein U3 and U4 are both the same and are selected from the group consisting of nucleoside methylphosphonate and 2'-O-methoxyethylribonucleoside.
17. (Withdrawn) The immunostimulatory oligonucleotide compound of claim 12, wherein U5 and U6 are both the same and are selected from the group consisting of 1',2'-dideoxyribose and C3-linker.
18. (Withdrawn) The immunostimulatory oligonucleotide compound of claim 12, wherein X1 and U3 are both 1',2'-dideoxyribose.
19. (Withdrawn) The immunostimulatory oligonucleotide compound of claim 12, wherein D2 and D3 are both the same and are selected from the group consisting of 1',2'-

dideoxyribose and β -L-deoxynucleoside.

20-40. (Cancelled)